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Vegetable farmers' attitude towards organic agriculture practices in selected states of South West Nigeria

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Organic farming as a sustainable agricultural approach is a growing concept in South West Nigeria. This study investigated the attitude of vegetable farmers toward organic agriculture practices in South West Nigeria and the determinants of their attitude. Cluster sampling was used to select 315 farmers from list obtained from the farmers' cooperative societies. Farmers were interviewed in person. Attitude was measured as a pooled score of respondents' responses to 25 positive and negative statements made on a five point Likert scale. Data was analysed using frequency counts, percentages, means and a probit regression model. A majority of the farmers had positive attitude toward organic agriculture practices. The most important attitudinal statement ranked by the farmers was that organic agriculture strengthens the use of indigenous knowledge (4.55). The results of the probit model revealed that farm size, farming experience, household size, membership of organization and sources of information (t = 0254, 0.089, 0.125,0.694, 0.021, p<0.01) respectively showed a positive relationship with attitude toward organic farming practices. Therefore, there is need for effective linkage of research systems with extension services on relevant organic practices, as a build up to traditional farming, adaptable and sustainable to local conditions of vegetable farmers.

Key words: Organic agriculture, vegetable farmers, attitude, linkage, South West Nigeria.

INTRODUCTION

Organic farming evolves holistic approach of agricultural production that sustains healthiness of the soils, ecosystems, biodiversity and the people in an environment. Organic farming combines indigenous innovation and science to benefit the shared environment, promote unmarred relationships and enhances better quality of life for all living and non-living things involved in an environment. Organic farming posits high potentials to assuage the problems of un-sustainability of agricultural production and environmental problems, providing food of optimum quality, utilizing sustainable management practices devoid of agrochemical inputs evident of damaging the environment and wildlife from conventional farming.

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Organic farming disallows the use of synthetic, compounded fertilizers, pesticides, growth regulators, and livestock feed additives. It embraces indigenous practices of crop rotations, crop residues, animal manures, legumes, green manures, off-farming organic wastes and use of biological pest control to control insects, weeds, and other pests, improving soil productivity, minimum tillage and provision of plant nutrients to grown crops sufficiently.

Organic farming emphasises the use of renewable natural resources and their recycling (Emsley, 2001). It augments soil organic matter content, raises soil pH, and improves nutrient exchange and water holding capacity of soil (Williams, 1999). Nigeria appears to be at the early stage of the development of organic agriculture, with very few farms or projects claiming to be organic and even fewer operating a recognised form of certified organic agriculture (Harris, 2006). Organic farming has higher potential than conventional farming in building healthy soil which is the foundation of food chain. It reduces harmful chemicals and pesticides out of the food we eat, preventing disease and having vantage role in promoting human health. Organic products are lower in water content, reserving higher nutrient density richer in iron, magnesium, vitamin C, antioxidants and more balanced with essential amino acids than conventional products (IFOAM, 2005). However, despite the unparallel beneficial effects and the great environmental friendly roles organic agriculture offers in supporting crop production and improvement of soil fertility in an agrarian environment, organic manure is not well applied by most farmers, even in areas where livestock population and adequate production permit its usage.

The underlining determinant of farmers' attitude towards organic farming as an innovation, involves the consideration of diffusion and adoption processes orchestrated by channels of communication, timeliness of dissemination, social structure and social values of the environment. Similarly, social, economic status and mental factors of the people also influence adoption of innovation. The five important characteristics of innovation related to an individual's attitude towards decision-making process and eventual adoption are; relative advantage, compatibility, complexity, observable and trial (Rogers, 2003). Furthermore, accessibility and affordability of innovation determine the sourcing, strength, will power and sustainable utilization of the innovation for optimum productivity and maximization of profits by the farmers. Vegetables' provide essential nutrients to humans affordably with its vantage cheap and reliable sources of protein, vitamins and minerals for body development and repair. They render relished support to main cereals in the country. Fruits, nuts and vegetables in the daily diet have been strongly associated with reduced risk for some forms of cancer, heart diseases, stroke and other chronic diseases (Hyson, 2002).

However, with the fore-going benefits of organic farming over conventional farming, global awareness of environmental degradation and climatic change that could score from continuous practice of inorganic farming, and the threats it poses on sustainable agricultural production, the farmers in South West, Nigeria are yet to practice organic farming as much as they practice inorganic farming.

This study was an attempt to understand the attitude of farmers about organic farming in the study area. Therefore, this study was designed to examine farmers' attitude of organic farming by providing answers to the following research questions:

(i) What are the socioeconomic characteristics of the farmers in South West, Nigeria?
(ii) What are the factors responsible for respondents' attitude towards organic farming?
(iii) What are the farmers sources of information for practising organic farming?
(iv) What are farmers'attitude about organic farming in South West, Nigeria?

MATERIALS AND METHODS

The study was carried out in South Western Nigeria. Cluster sampling technique was used to select the respondents because organic vegetable production practices in the production areas vary among the clusters. The sampling technique involved the random selection of three states from the six states in South Western Nigeria which are Ekiti, Ogun and Ondo. Three local government areas in the metropolis were purposively selected from each state to give a total number of nine local government areas used for the study. The choice of these local government areas was based on the prominence of vegetable producers in the different areas. The three local government areas chosen in Oyo state are Akinyele, Egbeda and Ogbomoso south. The three local government areas chosen in Ekiti state are Ado, Ikere and Ikole. The three local government areas selected in Ondo state are Akure south, Akure north and Ifedore. A cluster of vegetable producers was selected from each of the local government areas to give total of nine clusters. Thirty five producers each were randomly selected from the nine clusters to give a total sample size of 315 respondents for the study from a list of 420 vegetable farmers from the selected states.

Attitude was measured as a pooled score of responses to attitudinal statements (Table 4) made on a five point Likert scale. Scores for positive/ favourable items (that is, items that indicated a favourable disposition to environmental and organic production issues) were scored thus: strongly agree (SA) = 5; agree (A) = 4; undecided/neutral (U) = 3; disagree (D) = 2; strongly disagree (SD) = 1. While negative/ unfavourable items (that is, items that indicated an unfavourable disposition to environmental and organic production issues) the scores were reversed. Scores on all items were summed to get a composite attitude score for each farmer. The identified factors influencing vegetable farmers' attitude towards organic agriculture practices include age, gender, marital status, farm size, household size, extension contacts among others. Attitude was defined in this research as the inclination of the respondents to the organic vegetable farming practices. Attitude towards organic vegetable production among the respondents was assessed by asking the respondents in their local language to

indicate their opinion on 25 positive and negative statements. Individual scores were obtained and categorised. The highest score was 181, lowest was 45, and mean score was 93. Respondents with scores less than 93 were categorised as having unfavourable attitude on organic vegetable production, while those who scored 93 and above were categorised as farmers who have a favourable attitude on organic vegetable production.

Data collection and analysis

Data were collected from the respondents with the aid of a structured interview schedule consisting of both open and close ended questions. The data collected were analysed with the aid of the descriptive statistical tools of frequency count and percentage. An inferential statistical tool, Probit regression model was used to analyse the study hypothesis. The study hypothesis was that farmers' characteristics (e.g., age, gender, marital status etc.) would predict farmers' attitude toward organic practices. P-value ≤ 0.01 were considered statistically significant.

RESULTS AND DISCUSSION

Socio-economic characteristics of the respondents

The socio-economic characteristics of the respondents analysed in this study relevant to respondents' attitude of organic farming, include age, sex, marital status, and educational attainment. Analyses of results obtained from this study on Table 1 reveal that a majority (70.8%) of the respondents were males, with mean age of 43.7%, between the ages of 41 and 50 years, youth comprised of 27.9% while, adult comprised only 17.8%. This indicates that most of the farmers were middle aged, in their economically active stage. The majority (97.8%) of the respondents were married, while very few were widowed. This implies that married people were more involved in organic farming using assistance from their family members as added advantage for labour input as catalyst for more productivity.

Education attainment shows that majority (83.5%) of the respondents had some formal education that included primary, secondary or post secondary education while, 16.5% had no formal education. This finding is in line with Daramola and Aturamu (2000) who reported that contacts with extension agents as well as acquisition of formal education exposes the farmers to the availability and technical-know-how of innovations and increases their desirability for acquiring them. Findings also reveal that majority (63.8%) had a farming experience of between 16 to 20 years with mean years of 18.2 in conformity to apriori expectation that experience affords farmers wide opportunities to master the skill required in any chosen farm enterprise. More than half (55.6) of the respondents had household size of 6 to 10 people. This implies that many farm families take advantage of their large household sizes for increase in production and maximization of profits in their farming enterprise. Onyenweaku and Nwaru (2005), supported this finding that large household size eases labour constraints leading to increase in production.

High proportion of the respondents (64.1%) belonged to a co-operative society. This implies that co-operative society serves as a bolster for the respondents in accessing farm resources like agro-inputs, credits that could boost their timely adoption of improved vegetable practices. Barely half (44.8%) of the respondents had been into organic vegetable practices between 6 to 10years. This implies that organic farming is still a new practice in the country and yet to be deep-rooted into farmers' farm practices. Majority (62.5%) of the respondents had extension visits. This means that many of the respondents had quite some visits of extension agents that could facilitate transference of skills, knowledge and information on better practices of organic farming, which could facilitate better adoption. Respondents had access to information on organic farming through a variety of sources among which radio (43.2%) and extension agents (26.3%) were more accessible. This implies that radio and extension agents were the main information tools, playing significant roles in relating agricultural innovation on organic practices to the farmers.

Distribution of respondents' sources of information on organic vegetable farming

Table 2 indicates that a high proportion of the respondents (95.9%) had access to information on organic vegetable farming practices through farmers' co-operative society, more than half (84.8%) of the respondents sourced for information on organic vegetable farming practices from fellow farmers while few (7.9%) of the respondents sourced their information on organic vegetable farming practices from the newspaper. This implies that many of the respondents relied on innovators and early adopters among them for information on improved arable cropping practices and few of the respondents consulted the newspaper for information on organic vegetable production practices.

Accessible agricultural extension services on organic agriculture for the respondents

From the Table 3, the finding shows that 34.3% of the respondents accessed training and demonstration on various organic vegetable production practices sometimes, while 26.7% of the respondents sometimes had access to improved organic seeds. Low respondents (8.3%) were linked to biological control training practices all the time and small percent (19.6%) had link to market location of organic products by extension agents sometimes. Training on soil reclamation practices sometimes (22.9%) while few (14.9%) sometimes had

Table 1. Distribution of respondents' socioeconomic characteristics.

Variables	Frequency	Percentage	
Sex			
Male	223	70.8	
Female	92	29.2	
Marital status			
Married	308	97.8	
Widowed	7	2.2	
Age (years)			Mean
31-40	171	54.3	33.8
41-50	88	27.9	
51-60	49	15.6	
Above 61	7	2.2	
Educational level			
No formal education	52	16.5	
Primary education	82	26.0	
Secondary education	125	39.7	
Tertiary education	56	17.8	
Farming experience (years)			Mean
10-15 years	103	32.7	
16-20years	201	63.8	18.2
21-25years	11	3.5	
Household size			
1- 5 people	109	34.6	
6-10 people	175	55.6	
11-15 people	31	9.8	
Membership of cooperative society			
Yes	202	64.1	
No	113	35.9	
Years of organic farming			
1-5	67	21.3	
6-10	141	44.8	
11-15	65	20.6	
16 and Above	42	13.3	
Extension visit			
Yes	197	62.5	
No	118	37.5	
Source of information			
Friends	17	5.4	
Relatives	15	4.8	
Extension agent	83	26.3	
Radio	136	43.2	
Television	10	3.2	
Newspaper/Pamphlet	12	3.8	
Cooperative association	37	11.7	
Mobile phones	5	1.6	

Source: Field survey, 2012.

access to disease resistant seeds. This implies that the respondents had little access to extension services. This could be as a result of agricultural extensionists dearth knowledge on organic farming practices against the more pronounced conventional agricultural production practices in the country which may arouse a negative attitude by farmers to organic practices.

Attitude of respondents towards organic vegetable production

The result shows that more than half (67.6%) of the respondents had favourable attitude towards extension services received (score of 93 to 181), while 32.4% had unfavourable attitude towards extension services

Table 2. Distribution of respondents' sources of information on organic vegetable farming.

Source of Information	Yes		Frequency of accessibility (%)	
	Frequency	(%)	Always	Occasionally
Radio	74	23.5	31 (9.8)	43 (13.7)
Fellow farmers	267	84.8	109 (34.6)	158 (50.2)
Extension agents	99	31.4	0(0)	99 (31.4)
Television	38	12.1	9 (2.9)	29 (9.2)
Farmers Cooperative Society	302	95.9	175(55.6)	127 (40.3)
Newspaper	25	7.9	5(1.6)	20 (6.3)

Source: Field survey, 2012, *Multiple responses.

Table 3. Distribution of accessible extension services on organic agriculture.

Accessible extension services	All the time	Sometimes	Never
Training and demonstration on organic vegetable farming practices	43 (13.7)	108 (34.3)	164 (56.1)
Help source for improved organic seeds	21 (6.7)	84 (26.7)	210 (66.7)
Link with market location of organic vegetable products	38 (12.1)	62 (19.6)	215 (68.3)
Training on nurturing of vegetable plants to good harvest sales	23 (7.3)	54 (17.1)	238 (75.6)
Subsidized disease resistant varieties of seeds	15 (4.8)	47 (14.9)	253 (80.3)
Soil fertility reclamation	38 (12.1)	72 (22.9)	205 (65.1)
Biological pest control training	26 (8.3)	34 (10.8)	255 (80.9)

Source: Field survey, 2012, *Multiple responses.

received (score of 45 to 92). This implies that the respondents had an appreciable knowledge and inclination to organic farming practices in vegetable production. The experience of accessible agricultural inputs at low cost, environmental friendliness of practice and high economic returns though, with poor and shallow improved organic farming practices is likely to subsume them more to increased adoption of organic farming practices in vegetable production. The result confirms the a priori belief of the close knitted relationship of traditional farming with organic agriculture, advancing ecological resilience and development of farmers' local manpower, knowledge and strength for effective agricultural production amidst continual vagaries of weather condition and other environmental conditions of climate change. Food and Agriculture Organization (FAO, 2008) validated this finding that organic agriculture provides environmental goods and services.

The results showed a high positive and favourable attitude of farmers toward organic agriculture taking item by item analysis of attitude statements. A higher proportion of the means for farmers attitudinal statements were above the cut-off point of 2.5. The most important attitudinal statements as ranked by the farmers were statements that organic agriculture (OA) strengthens the use of indigenous knowledge (4.55), OA provides social compatibility with its practices (4.54), OA increases farmers income with low cost (4.44), OA reduces input costs of production (4.38), OA has no long term effect on ecological health (4.38), OA is prone to soil erosion (4.36), OA reduces all forms of environmental pollution (4.30), OA reduces farmers exposure to health hazards (4.29), OA product enjoys poorer taste to conventional agriculture products (4.29), OA product is not as healthy and beautiful in appearance as conventional agriculture (4.29), OA improves soil fertility and soil structure (4.23), OA ensures biodiversity (4.21), OA is efficient in mitigating climate change effects (4.21), OA is efficient in reducing pests and diseases infestation (4.14), OA increases vegetable productivity (4.11), OA reduces environmental degradation (4.05), OA products are very expensive for consumers to afford (3.98), OA does not offer potential for food security (3.93), OA vegetables has higher demand than conventionally produced (3.78). These items revealed the potentials of organic agriculture in maintenance of environmental bio-diversity, mitigation of climate change effects, limitation of environmental pollution and degradation, sustenance of people's value and system stability among others.

OA does not offer potential for food security (3.93). This may be because organic agriculture do not hold same potential as conventional agriculture in providing same quantity of harvest to feed the teeming population of the country but contributes safely to local food security and increased farmers income in the country. Arponen (2009) supported this finding that one of the principal objections

Table 4. Attitude of respondents towards organic vegetable production.

Attitude statements	SA	A	U	D	SD	Mean score	Rank
Organic Agriculture (OA) ensures biodiversity	126(40.0)	162 (51.4)	4 (1.3)	16 (5.1)	7 (2.2)	4.21	12th
OA improves soil fertility and soil structure	113(35.9)	181 (57.5)	6 (1.9)	9 (2.9)	6 (1.9)	4.23	11th
OA provides social compatibility with its practices	179(56.8)	132 (41.9)	-	2 (0.6)	2 (0.6)	4.54	2nd
OA reduces all forms of environmental pollution	123(39.0)	171 (54.3)	6 (1.9)	9 (2.9)	6 (1.9)	4.30	7th
OA is efficient in mitigating climate change effects	127(40.3)	158 (50.2)	8 (2.5)	13 (4.1)	9 (2.9)	4.21	12th
OA is efficient in reducing pests and diseases infestation	121(38.4)	162 (51.4)	-	18 (5.7)	14 (4.4)	4.14	14th
OA reduces input costs of production	180(57.1)	115 (36.5)	-	20 (6.3)	-	4.38	4th
OA strengthens the use of indigenous knowledge	182(57.8)	129 (40.9)	-	4 (1.3)	-	4.55	1st
OA increases value addition to produce	108(34.3)	103(32.7)	45 (14.3)	33 (10.5)	26 (8.3)	3.74	21th
OA increases farmers income with low cost	169(53.7)	122(38.7)	18 (5.7)	6 (1.9)	-	4.44	3rd
OA reduces environmental degradation	123(39.0)	142(45.1)	11(3.50)	22 (7.0)	17 (5.40)	4.05	16th
OA vegetables has higher demand than Conventionally produced	100(31.7)	135(42.9)	13 (4.1)	44 (14.0)	23 (7.3)	3.78	19th
OA reduces farmers exposure to health hazards	137(43.5)	156(49.5)	6 (1.9)	9 (2.9)	7 (2.2)	4.29	8th
OA is transitionally difficult to sustain	67(21.3)	79(25.1)	2 (0.6)	116 (36.8)	51 (16.2)	3.00	24th
Certified OA products is limited	81(25.7)	102(32.4)	3 (0.9)	85 (27.0)	44 (14.0)	2.71	25th
OA products are very expensive for consumers to afford	24(7.6)	19(6.0)	15 (4.8)	138(43.8)	119 (37.8)	3.98	17th
OA does not offer potential for food security	19(6.0)	38(12.1)	-	145(46.0)	113 (35.9)	3.93	18th
Health benefits of OA products is of low awareness among consumers	45(14.3)	23(7.3)	-	134(42.5)	113 (35.9)	3.78	19th
Agricultural professions lack proper knowledge and training of OA practices	29(9.2)	54(17.1)	-	125(39.7)	107(33.9)	3.72	22nd
OA product enjoys poorer taste to Conventional agriculture products	-	-	18 (5.7)	187(59.4)	110(34.9)	4.29	8th
OA is prone to soil erosion	-	-	-	203(64.4)	112(35.6)	4.36	6th
OA increases vegetable productivity	-	24(7.6)	11(3.5)	187(59.4)	93(29.5)	4.11	15th
OA product is not as healthy and beautiful in appearance as Conventional agriculture	-	-	14(4.4)	194(61.6)	107(34)	4.29	8th
OA has no long term effect on ecological health	-	5(1.6)	17(5.4)	146(46.3)	147(46.7)	4.38	4th
OA market niche provides more tedious agronomic practices than conventional agriculture	23(7.3)	126(40)	25(7.9)	67(21.3)	74(23.5)	3.13	23rd

SA: Strongly Agree, A: Agree, U: Undecided, D: Disagree, SD: Strongly Disagree, OA: Organic Agriculture.

to the assumption that organic agriculture can guarantee the global food security is its well known capacity to produce lower yields and therefore less food in total compared to conventional agriculture. OA vegetables have higher demand than conventionally produced (3.78). This may be because consumers of vegetable produce who want to reduce health care costs, increase their intake of minerals and

Table 5. Predictors of respondents attitude to organic vegetable production.

Variables (factors)	Estimates	Standard error	Z score	Significant values
Sex	-0.047	0.129	-0.035	0.623
Age	-0.058	0.014	-8.312	0.001
Marital Status	-0.051	0.126	-4.083	0.003
Religion	0.117	0.095	1.254	0.165
Educational level	-0.248	0.081	-4.532	0.002
Farm Size	0.254	0.016	11.281	0.000
Farming experience	0.089	0.008	9.634	0.000
House hold size	0.125	0.019	6.843	0.000
Years of organic farming	-1.017	0.138	-0.069	0.725
Membership of organization	0.694	0.173	5.163	0.000
Extension contacts	-1.761	0.694	-3.067	0.930
Frequency of extension contacts	-2.421	0.682	-3.472	0.821
Sources of Information	0.021	0.002	5.341	0.000
Intercepts	2.125	0.643	2.331	0.006

***p< 0.01, **p< 0.05, *p< 0.10, Chi square = 2.572E+092, PROBIT model: PROBIT (p) = Intercept + BX.

vitamins void of pesticides and agro-chemicals grown. Gliessman (2005) corroborated this finding that farm using organic practices have healthier soil which is able to sustain plant growth, higher in nutrient content and it enables the farmer to grow crops for longer periods, with higher yields and when conditions are marginal.

The remaining scores of other items ranged from 3.00 to 3.72. These items were related to organic agriculture practices' engendering reduced vegetable production and food security limitations. These show that organic agriculture has its own limitations and not a total revolutionary trend to food security.

Determinants of vegetable farmers' attitudes towards organic farming in South West Nigeria

Probit regression model was used to test the relationship among the determining variables attracting farmers' attitude towards organic vegetable production practices. The results of the probit model showed in Table 5 that farming experience (t = 0.089, p = 0.002), farm size (t = 0.254, p = 0.002), household size (t = 0.125, p = 0.000), membership of organization (t = 0.694, p = 0.000), and sources of information (t = 0.021, p = 0.000) of the farmers had a significantly positive relationship with their attitude towards organic farming practices. This indicates that farmers with long farming experience are more likely to have favourable attitude towards organic farming practices as compared to farmers with few numbers of years in farming. Also, farmers with large farm sizes adopted organic farming practices than farmers with small farm sizes. This could be as a result of the vantage ground the large farm-sized farmers hold for trials on small parts of their farms before they eventually adopted organic practices on the entire farm as sustainable decision, unlike the small farm-sized farmers who may not take up risks of innovation on time due to their more cautious and skeptic nature, until they see a large number of farmers taking up such innovation for utilization, effectively well over time.

Furthermore, farmers with large household sizes adopted organic farming practices than those with small house hold sizes. This could be as a result of the intensive labour required in organic practices, calling for many hands in witnessing sufficient and efficient production. This confirms the a priori expectation that large household size reduces and eases labour constraints among farm families. Likewise, farmers belonging to an organization were better positioned to access new information, ideas and innovation through the forum they registered their membership other than the farmers that did not associate with any organization. However, the results of probit model implied that age (t = -0.058, p = 0-001), married status (t = -0.051, p = 0.003) and educational level (t = -0.248, p = 0.002) showed a significantly negative relationship with attitude towards organic farming practices. The results showed that younger farmers were more likely to practice organic farming than the older farmers. This could be that, the older farmers displayed more aversion to risk as they held lower net worth and risk capital in farming enterprise compared to the younger farmers. Also, age pre-disposes a supportive factor of an individual's strength to manual and intensive labour. Moreover, the unmarried farmers were advantageously placed to practice organic farming better than the married farmers. This may be that the unmarried have lesser dependants to cater for compared to the married, who have more dependants to look after and calls for cautious and careful decision on risks to be

taken without attraction of compromise to their societal statutorily roles. In addition, the less educated farmers practiced organic farming more than the educated farmers. This could be a manifestation of the proximity of traditional farming methods employed by this group of farmers from time immemorial with shallow information on improved organic practices, attracted their attention and interest more to organic farming practices than the educated farmers. The years of organic farming and extension contacts received from the government showed a non-significant relationship with attitude. This showed that the farmers had poor extension services from the extension agents and organic farming practices adopted by farmers were not robust and well integrated organic practices, but low input agriculture, precision farming practices and biodynamic farming. Daneji et al. (2006) corroborated this finding that extension agents are ineffective in information dissemination in Nigeria.

CONCLUSION AND RECOMMENDATIONS

It can be concluded from this study that most of the vegetable farmers are middle-aged and have positive attitude towards organic agriculture. The big farm size, long farming experience, large household size acquired, membership of organization subscribed to and sources of information explored by most of the respondents are predicating and inducing factors attracting positive and favourable attitude of majority of the farmers to organic practices. The extension contacts received and frequency of extension services available to farmers on organic farming practices are poor and posit hindrance to massive adoption of innovation on organic practices. The study shows that organic farming is still a growing concept in the study area, with the vegetable farming practices adopted by the farmers being less robust but productive to efficient result-based of low input agriculture. Organic agriculture therefore, holds a great potential of effectively contributing to local food security, health of citizens, increased family health and environmental standards at a low expense than conventional agricultural practices. Attitude therefore, is formed primarily by socio-economic status and ethical values upheld by the people in an environment. Therefore, there should be strengthened collaborative effort by the research institutes and Agricultural Development Project (ADP) as the body mandated with extension delivery to ensure prompt and appropriate organic farming innovation dissemination to farmers as a guarantee to sustainable farming practices in the country in the face of challenging climatic conditions. Farmers should be charged and encouraged to form cooperative societies in order to facilitate improved access to credit facilities among themselves, so as to bolster their capital base for efficient and more productive organic vegetable farming practices. Organic farm service outlets or centres where organic inputs such as improved organic seeds, organic fertilizers and herbicides etc. would be stocked for sale at subsidized and affordable prices to the farmers should be established and well funded by the federal and state governments in accessible locations to complement innovation dissemination effort of ADPs with accessible organic inputs sourcing for efficient organic farm production in the country.

Conflict of Interests

The author(s) have not declared any conflict of interests.

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